

ANTIMICROBIAL COATINGS FOR MEDICAL APPLICATIONS

ABSTRACT OF THE DISCLOSURE

The invention generally is related to preventing or inhibiting microbial infections on live tissues or in relation to the use of medical articles. In one
5 embodiment, the invention is directed to a method for forming an antimicrobial coating on live tissue or a medical article, such as, for example, a catheter. The method includes applying to a live tissue or a surface of a medical article an aqueous or non-aqueous composition that includes at least one silane of the general formula $R^1_nSi(OR^2)_{4-n}$ wherein, n is an interger of 1 or 2, R^1 generally is a lower alkyl group, a C_6 - C_8 aryl
10 group, or a functional group, such as vinyl, acrylic, amino, mercapto, or vinyl chloride functional group, and R^2 generally is a lower alkyl group. A partial condensate of a silanol of the formula $R^1Si(OH)_3$ also can be used. The composition includes one or more additional ingredients. The method also includes reacting and/or curing the silane, in the presence of the one or more ingredients, thereby forming the antimicrobial
15 coating.